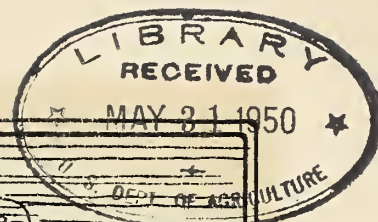


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Shelterbelt Project



Vol. 2, No. 7

July - 1937

STANDARDS

It is a characteristic of youth, whether in an individual or an organization, that it is impatient of standards. It sees so much before it and is so eager to tackle the job, that the tendency is to make concessions to expediency in the interest of increased output, with the hope, usually vain, that somehow everything will turn out all right. The Forest Service was far from free of this failing in the early days of its administration of the National Forests, an acknowledgement that is tempered by the fact, however, that there was little of research or precedent on this continent by which to be guided.

This Project is in a vastly superior position in that respect. We have a highly competent research organization at our elbow; for 20 years or more experiment stations have been studying tree planting and its effects on the Plains; State institutions have a wealth of minutely compiled data regarding almost every factor that affects our work. All of the makings of a reasonably sound set of standards are at hand, so the only question is the degree to which we shall recognize and observe them.

To plant a lot of trees on the wind-swept Plains is a laudable ambition, but it by no means represents the limit of our obligation. Unless we hew strictly to the line of good practice in the matter of quality of stock, spacing, composition and location, regardless of the harassing pressures of the moment and their possible effect upon the number of trees planted, the omissions will haunt us for a long time to come. Twenty years from now the proud records of the number of trees that we planted in 1938 will be moulding in some storage basement, but the trees themselves will be living witnesses to the manner in which we kept faith with our convictions. Even if we do the best job that we know how today it probably will seem none too good a few years hence, since undoubtedly research and experience will tend to refine our present concepts.

- E.L.Perry, R.O.

YALE FORESTER INSPECTS PROJECT

Mr. Bates of the Lake States Station sent me a letter stating that Dr. Lutz of Yale University was making a trip and that he had expressed his desire to see some of the shelterbelt work principally because there has been considerable controversy as to the merits of the project among eastern professional foresters. You already know that at least part of this adverse criticism on the part of eastern foresters headed up at Yale University. Dr. Bates asked me if I would take enough time to show Dr. Lutz through part of our strips.

We left Brookings about 9:00 A.M. Saturday, July 3. I showed him through our Brookings Nursery and also the Sioux Falls Nursery. From there we proceeded west into the Mitchell area where we rather thoroughly inspected some 18 or 20 shelterbelt strips. These strips consisted of 1935, 1936 and 1937 plantings.

Dr. Lutz proved to be very interesting as well as a very fine and reasonable gentleman. I am convinced that he was sincere when he stated that results we had accomplished to date under the most adverse conditions were quite unbelievable unless one had an opportunity to personally inspect the work with his own eyes. He stated that the survival that we have obtained under such adverse conditions is not only remarkable but was actually higher than the survival that had been obtained in the east on similar plantings. He also stated that the vigorous growth we are obtaining on our hardwoods was even higher than that obtained on the similar classes of stock in the eastern part of the United States.

I spent more time discussing the economic aspects of the project with Dr. Lutz than I did any of the other phases. He seemed especially interested in this phase of the work and openly and rather aggressively expressed his opinion that after seeing the work, there is no doubt in his mind that under normal rainfall conditions this project would do much toward stabilizing agriculture in the prairie region.

- A.L.Ford, S.Dak.

RODENT CONTROL PROFITABLE TO FARMERS

Mr. H. L. Cudney, one of our most ardent and faithful cooperators, reports that he considers the protection given his crops from rodents by the Biological Survey to have increased the yield of his land more than enough to compensate for the land taken from immediate production by his shelterbelt strips.

This unsolicited assertion of the value of proper rodent control was made to Mr. C. F. Orendurff while he was visiting Mr. Cudney's place to leave him additional poisoning materials.

Mr. Cudney is located near Trousdale, Kansas and has three tree strips planted by the Forest Service during the past three years. He is one of the leading farmers in that community and considers rodent control operations very essential to the successful growth of his trees.

.. Frank Sampson, U.S.Biological Survey

MAINTENANCE OF FORESTS

"Most people are accustomed to think of forests, if they think of them at all, as natural areas which can be drawn upon for timber, in much the same way as a mine can be drawn upon for some mineral product," says Wood (London). "It is interesting to note, therefore, that one of the points made at the Fourth British Empire Forestry Conference, held in South Africa last autumn, was the need for research in silviculture more especially directed to the maintenance and improvement of the fertility of the soil. That forests are essential for these purposes, at any rate in some parts of the world, has been clearly demonstrated in America, Africa and Asia, and there is little doubt that investigation would prove that it was also true in Europe and Australia. There is evidence which shows that parts at any rate of the great North African desert were once covered with forests and it is now realized that the destruction of forest anywhere along the present boundaries of the desert at once encourages the encroachment of the sand. It would be well, therefore, if the necessity of maintaining forests, not merely as timber factories, but also as safeguards of some of our most important food-producing areas, could be brought home as forcefully as possible to the mass of the people."

- Six Twenty Six

KANSAS FORCE HAS PICNIC

On Saturday, June 26, the Forest Service and the Biological Survey of all field districts in Kansas enjoyed a fried chicken picnic dinner at one of the Pratt Municipal Parks.

An informal meeting was held after the lunch with Mr. T. Russell Reitz, State Director, officiating. There are those who firmly believe that Mr. Reitz missed his calling when he did not become a football coach, since his talk at this meeting was very much of the pep variety. It went a long way in imbuing the members of the field force with a bright spark of enthusiasm. The remainder of the afternoon was spent in playing tennis, swimming, roller skating and horseshoe pitching.

Those attending the affair were: Mr. T. Russell Reitz, Manhattan; Mr. and Mrs. Karl Ziegler, Mr. and Mrs. Carroll F. Orendurff and Miss LaVera Hecht from Coldwater; Mr. and Mrs. Glenn Spring and children and Mr. and Mrs. Norman C. Brubaker and children from St. John; Mr. and Mrs. Ralph V. Johnston from Kinsley; Mr. and Mrs. Frank Sampson, Mr. Robert A. Dellberg, Mr. Adolph Dellberg and Miss Virginia Martin from Pratt.

Everyone present had a good time and it was unanimously agreed that get-togethers should be more frequent.

- Virginia Martin, Kans.

MINNESOTA TIMBER STAND NOT SO LOW

Minnesota timber volumes may be down but they are not so low as indicated in the Daily Contact of July 3, according to a memorandum from the division of State and Private Forestry. The item "Who Has Forests Now?" in which South Dakota with 3 billion board feet of standing sawtimber was purported to have $\frac{3}{4}$ as much as now remains in Minnesota was in slight error. If the $\frac{3}{4}$ were changed to $\frac{1}{4}$, the true situation would be revealed. A Lake States Forest Survey, recently completed for Minnesota showed a standing timber volume of 12,454 million board feet (lumber tally).

- Daily Contact

THE 7-ROD SHELTERBELT

A correlation of present spacing and strip width standards with future management of shelterbelt plantings must of necessity be somewhat theoretical because of the present lack of substantiating scientific data. The planning of a satisfactory shelterbelt is influenced by a variety of conflicting factors which must all be considered in arriving at an optimum structure.

The accompanying chart shows the composition, arrangement and spacing in a seven-rod belt for the north and south and how it lends itself to economical and satisfactory maintenance and management as a permanent improvement on the farm.

Based upon our present knowledge of the life expectancy of the various species under Great Plains conditions, the belt divides naturally into three sections - temporary, semi-permanent, and permanent. The temporary group with an expected life of from 50 to 60 years is on the lee side, and being on the outer edge of the belt will allow for less difficulty in replanting. The semi-permanent group in the center of the belt consists of those species which for the most part can be expected to survive for 75 to 100 years, and under which a reasonable amount of natural reproduction can be expected. The permanent portion of the belt consists primarily of the coniferous species which are long lived and will form the backbone of the protective planting.

The spacing used is believed to be close enough to give an early canopy and will accomplish two things. It will shorten the cultivation period, and will give an early canopy that should result in satisfactory forest conditions for obtaining natural reproduction of such species as green ash, hackberry, American elm, Chinese elm, bur oak, and red cedar. Also with the aid of birds, an excellent ground cover of shrubs such as buckbrush, dogwood, currant, Juneberry, and many others should be obtained.

Aside from the greater protection afforded the trees themselves by this close and large-group association, this composition is designed to minimize the effects that would otherwise result from large holes being left by later losses or even the entire loss of one or several species. Obviously the loss of three or four trees here and there will not be of material importance in this composition, but the same loss in a narrow belt would leave large holes that would greatly reduce the effectiveness of the protective strips.

This close spacing will necessitate certain thinnings to be made fifteen to twenty years after planting. Tentative thinnings are indicated on the chart in the intermediate and tall trees that, when made, will not only release adjacent rows, but will make temporary openings in the canopy that should influence the amount of reproduction obtained. Aside from the benefits to the plantation itself, these thinnings will produce a considerable amount of wood material in the form of fuel wood, fence posts and in some cases even a limited amount of rough lumber that will be of material value to the farmer. Reproduction of such species as black locust, Osage orange and catalpa, after cutting, will be easily obtained through coppice growth.

This natural reproduction, together with some planting, should keep the belt sufficiently complete to give continued protection to crop land against high winds and blowing soil.

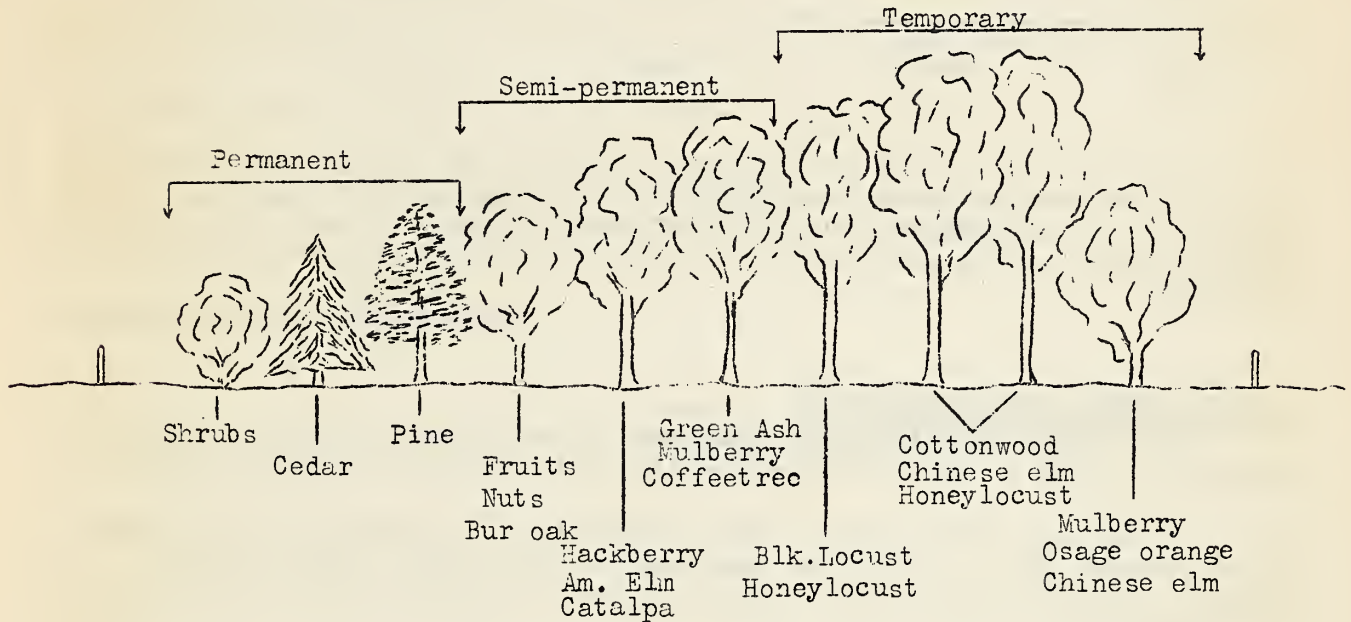
- S.S.Burton, R.O.

COMPOSITION IN THE SOUTH

7-ROD BELT

Spacing: Shrubs 10 x 4 - Trees 10 x 8 - Isolation Strip 13 feet

Tentative thinnings - Rows 5, 7, and 9

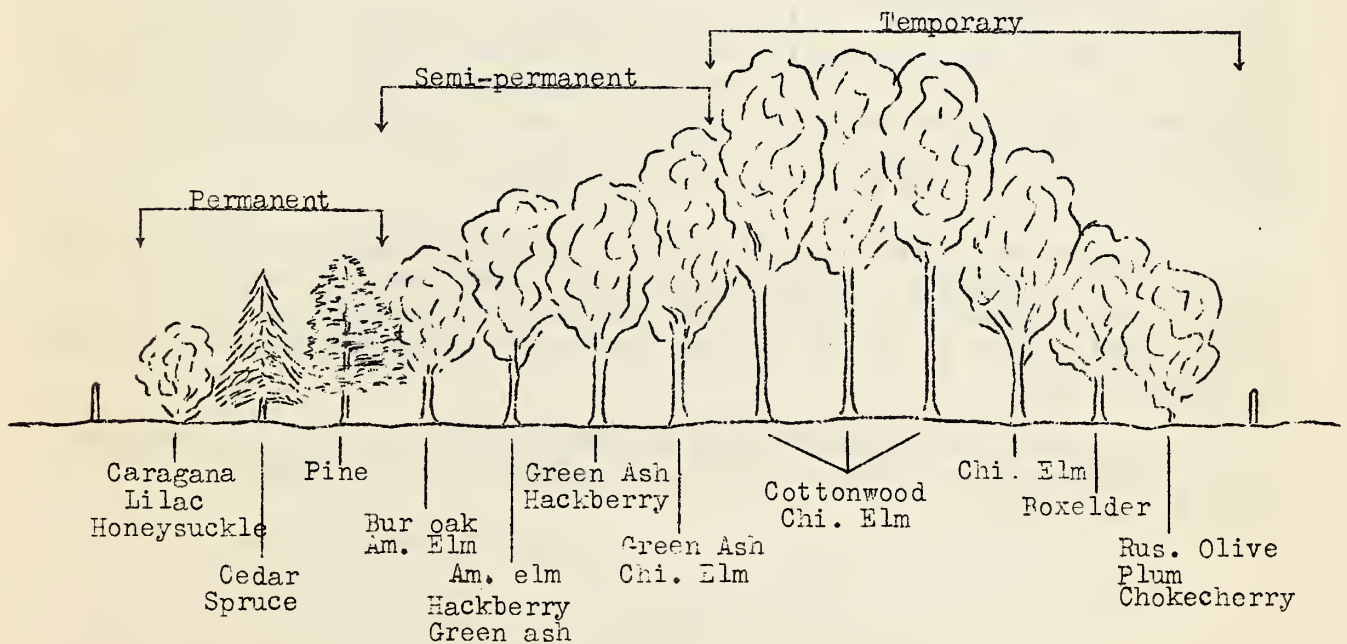


COMPOSITION IN THE NORTH

7-ROD BELT

Spacing: Shrubs 8 x 3 - Trees 8 x 6 - Isolation Strip 10 feet

Tentative thinnings - Rows 5, 7, 9, and 12



COMPARATIVE COSTS OF NEBRASKA RODENT CONTROL IN 1936 AND 1937

Fiscal Year	Miles Under Control	Acres Under Control	Total Expenditures	Cost per Acre of Control
1936	129.45	82,848.0	\$24,963.58	\$.310
1937	449.63	287,763.2	23,363.62	.081

1937 rodent control cost approximately \$.08 per acre, undeposited co-operation was estimated at about \$9912.00, bringing the total cost per acre to about \$.116. This figure is interesting when compared to the cost per acre in 1936. As more strips are planted the cost of control should decrease considerably.

- Robert Isaac, U.S.Biol.Survey

LISTER-DAMMING FOR SHELTERBELTS

One of the most important problems in our future planting programs is going to be "How to Raise Trees Successfully on the More Difficult Sites."

To date we have tried to plant tree strips on favorable sites, which meant, in most cases, confining ourselves to the sandier soils; however, sooner or later we will have to tackle the more difficult sites, which will mean invading the heavier soils type.

In doing the latter we will need a revised method of approach. It is unlikely that we will develop new species, or change our planting system to any great extent, so our best approach appears to be in ground preparation and methods of cultivation after planting which will conserve and retain most of the falling precipitation, making it available to the trees.

One such method was used with great success on the Vertis Swarner strip, north of Coldwater. This strip, situated on Richfield silt loam, a typical D1 site, was practically devoid of moisture in May. Mr. Swarner went into it with a two-row lister and dammer attachments in the hope that later a heavy rain would be forthcoming. His wishes were gratified; in two days time three inches of rain fell, and most important of all, stayed where it fell on the strip. Only a few of the dams washed out.

An examination six hours after the last rain revealed that a thin film of water still remained in a few of the dams. Also, that on nearby land outside the strip, the rain had penetrated but one and one-half feet on the average, while between the dams it had penetrated beyond the three-foot depth to which we dug.

From this it would seem that the lister-dammer cultivating implement will be invaluable to us in the future on heavier soils, as a method of moisture conservation.

- Karl F. Ziegler, Kans.

KANSANS LIKE TREES

(Following are excerpts from a number of letters from farmers, collected by the Kansas Unit. It is regretted that space does not permit the publication of more of them, but these furnish a good cross-section of the sentiment that exists among Kansas farmers toward trees.)

In regard to trees, I would say that I like to have them around for the reason of windbreak and for fuel, and to look at. I am a great lover of trees. Here at my place the trees are cottonwood, walnut, and elm and mulberry. I have about 12 acres altogether; for the value of them, they are worth \$1,000 to me as a help to the farm. I would say it is of great benefit to the farm. I am in favor of trees.

In regard to the trees on this farm, I think they are worth a lot. Just what they mean to the farm in cash value would be hard to say. We had a tree row of cottonwood on the north side of one quarter and the drought two years ago killed nearly all of it. After the dead trees were removed the soil drifted badly and some ground blew that had never blown before. We also have some woodlots near the house and barn. Their value as a shelter for stock, fuel supply and shade would be hard to estimate in dollars and cents. The government planted about 7,000 trees on this place this spring and I think they are of more value to the place than any crop that has ever been planted before. Any money that is spent on this shelterbelt is being spent for a good cause. We may not realize much good from these young trees but our children in years to come will be glad to live here and see them grow and benefit from them. There are a great many trees being pulled out where new highways are being built. Last year we lost $\frac{1}{2}$ mile of trees that way. I think that for every tree the county or state pulls out, they should be made to plant five in its place wherever the landowner wants them.

We have about 10 acres of trees on our 280 acres, and they are a wonderful protection from the wind and also very good shade trees. They have kept our land from blowing and that is worth a lot.

I have observed groves in this country for thirty years and think they are a great protection to the land and buildings. In my opinion they will break the wind to a large extent for 80 rods. I think the government work in setting trees is of great benefit to the country.

In my opinion the building of groves in any community is of utmost importance. For 20 years I have observed a grove of cottonwoods about one-half mile long and of varied width, and can say from experience, the grove is invaluable as it protects practically the whole place ($\frac{1}{4}$ section). In winter and in summer it is a protection from cold and from hot winds. The government can do no better work than foster this program.

I have noticed and observed that groves and trees in this community have protected us against duststorms and high winds and they make the country a more pleasant and beautiful place in which to live. Trees have been dying during the drought and I think it no more than right to replant and protect our country.

I think that the Shelterbelt is the greatest work that the government is doing. In a few years when the trees have made growth, the people will then appreciate what you are doing. On my farm I think the trees have stopped erosion and have had a great influence on the velocity of the wind. My farm does not blow, only possibly on a few sandy knolls. I believe the work of the Shelterbelt will make Kansas a place of beauty as well as from a commercial standpoint. I have about 40 acres of trees, about 10 varieties, but I think the cottonwood the most valuable of them all. The cottonwood trees are about 60 years old.

We have 24 acres of timber, mostly cottonwood and cedars, but some boxelder, mulberry, Russian olive, maple and Jerusalem trees and walnuts. This shelterbelt is worth lots to us as a protection to stock and fuel, also beautifies the place. It would take several thousand dollars to take those trees from us.

The more trees we have the less hot winds we have and less high winds too, and for stock they are fine for shade and help keep the flies off. If I had to sell the trees on this place for a price, it would be too high for anybody to buy.

RANGE MANAGEMENT AFFAIRS

Our participation in the Range Program in South Dakota and Nebraska of the North Central AAA Division is drawing to a close with establishment of average carrying capacities of grazing land by counties within those States. Practically all of April and May and a portion of early June were devoted to training of locally selected men in the Forest Service methods of range surveys, and in follow-up with field contacts, giving further assistance and instruction. Most of the Forest Service men who have been detailed to range work in those states either are, or soon will be, on their way to their home regions. They have done a creditable piece of work which has gained respect for the Service and for which we are appreciative.

Range examination, under the direction of the Forest Service in North Dakota and Kansas of the Western AAA Division, is now proceeding at a regular rate.

Mr. Fred Furst of Washington, who, in the absence of Mr. Chapline, is heading up the Western Range Survey for the Forest Service, stopped over in Lincoln about a week and gave us assistance in interpreting the budget and instructions. He also stated that during his stay here, his own ideas about a desirable form of assembly were somewhat cleared up and modified. Mr. John C. Baird, who is heading up that Project for the Forest Service within the Prairie States, accompanied Furst to Denver and to Colorado Springs in order to gather useful pointers about this new job from the Rocky Mountain Experiment Station. Baird and Furst also circled through the western portion of Kansas in order to contact some of the county committees and gain first-hand information as to what form of assembly would be most useful to them.

Mr. David A. Arrivee, Assistant in the branch of Range Management, is at present on leave. He, with his family, is at Big Springs, Idaho.

- F. Lee Kirby, R.O.

MAYBE WE HAD BETTER REQUISITION SOME SCALE STICKS

According to the June PLAINS FORESTER, the trees in Oklahoma bear seed at a tender age and our sympathies go out to Texas in her super-human efforts to keep down those millions of young tamarix. Cockleburrs and other native vegetation have given us plenty of trouble in Kansas, but we never had any trouble with young tamarix choking out our shelterbelt strips, and I am wondering if all this youthful urge toward reproduction is really a good thing for the trees.

I remember up in Iowa we used to have certain female poultry which seemed to have over-stimulated glands that led them to constantly have tender notions about raising a family. These individuals refused to scratch and turn out their quota of breakfast fruit. They would set and set for weeks on bits of corn cobs or old door knobs, always hopeful of a family in the offing. Untiring "coot-tooks" from the roosters and frequent submerging in the tank never changed the steadfastness of these non-producers. These persistent females were just like the young tamarixes so aptly described by the Director of Texas as: "We challenge any other state to beat this record."

Now here in Kansas we have not observed the phenomena reported in Oklahoma and Texas. Our shelterbelts have just sort of been acting normal, drooping their leaves in the hot part of the day so they won't get cooked, discouraging grasshoppers from gnawing at their innards, and putting on increment.

This strict attention to business on the part of the Kansas trees has resulted in a very favorable attitude towards our project by the strip owners. Several farm owners who came to Kansas when the saw log business dwindled in the big woods of the northwest are even now looking up the prices of saw mill equipment and have started negotiations to secure loans to install such equipment on their farms.

- W. G. Baxter, Kansas

IS YELLOW MUSTARD POISONOUS?

During May and early June of this year, many dairy and range cows used for milking purposes and grazing on the open range in central Kansas were affected by a swelling of the udder, followed by a blackening and hardening of both udder and teats. The udder became finally very black and leathery, and evidently gave the cow much pain, as very often she would kick at the udder with the hind feet, and sometimes run violently for short distances. In most cases, extreme lassitude and weariness were the only results of this sickness; after two or three days of lying around in more or less of a stupor, the animal would regain its former energy. However, in some extreme cases death resulted, and in almost every case part or all of the udder was rendered useless for milk production, the milk becoming thick and ropy, and ill-smelling. No instance of loss of calves by cows was reported so far as is known.

Veterinarians in Ellsworth, Saline, Osborne and other central Kansas counties were all unanimously of the opinion that the yellow mustard plant (*Sophia intermedia* and allied species) was the cause of all the trouble. Due to the overgrazed and drought-stricken condition of the range in central and western Kansas this spring, many areas formerly having a good buffalo grass or blue grama grass cover were taken over entirely by this yellow-flowered pest, and the cattle turned on the range prematurely were forced to subsist

almost entirely on Sophia, so it might be possible that the plant did have something to do with this new cattle disease. As yet, however, experiments at Kansas State College in feeding the cut plant to stock have produced no results similar to the condition of cattle grazed on the range.

- Victor O. Goodwin, Kansas

PROGRESS OF THE RANGE WORK IN KANSAS

The Range Examiners talk range management and range conservation in all of their contacts, which are with business men as well as ranch operators. The ranch operators will admit that deferred and rotation grazing are the proper practices for their pastures, and that they are stocking their pastures too heavily, but they believe that if the Examiners could make it rain, all of their trouble and problems would be solved. It is rather a hard job to convince the ranchers that we have to work with nature, and not make our management plans and hope that nature will alter her course to fit in with our plan of management.

Summarizing briefly the progress made by the range program to July 3; there were 650 applications examined and 88 cancelled, with a total area of approximately 1,207,000 acres. There are about 945 cases yet to be examined. Applications were received in 76 counties. To date 21 have been completed, leaving 55 still unfinished.

FOREST SERVICE IN ACCORD WITH PLANNING BOARD ON REFORESTATION

Says the South Dakota State Planning Board report of July 3, "FAVORABLE REACTION to a resolution endorsing extensive reforestation and afforestation work in South Dakota, sent to the Department of Agriculture June 21 by the State Planning Board, was indicated this week in a reply received by S. H. Collins, Board Secretary, from G. D. Cook, Acting Assistant Chief of the Forest Service.

"The Secretary of Agriculture has received your letter,' Mr. Cook said, 'enclosing a copy of resolution passed by the South Dakota State Planning Board, and has referred it to the Forest Service.

"I am deeply appreciative of the endorsement by your Board of the reforestation and afforestation work, which is being done in the Prairie States Area. The Forest Service believes that tree planting is a vital factor in the public welfare of that area, and that it has a distinct relationship with the prosperity and stabilization of that region. The expression of appreciation given by your Board greatly heartens us in this work.'

"The Resolution, passed by the members of the South Dakota State Planning Board in full meeting at Mitchell June 17, and sent to Washington, was worded as follows:

"RESOLVED: That the Planning Board in communication with the Secretary of Agriculture, Henry A. Wallace, endorse the use of demonstration or conservation areas for the concentration of forestation in connection with the Shelterbelt Program of S.C.D.A.'"

SELLING OUR PROGRAM

(The following article, taken from "Soil Conservation Service News," bulletin of Region 4 of the Soil Conservation Service, is so generally applicable to our own program that it should be interesting to all field men.)

It is essential that the cooperator appreciate certain fundamentals if he is to understand soil conservation and discuss it soundly with his neighbors. With this in mind, some random suggestions may be helpful to those who work with farmers:

1. Have as much previous knowledge of the farmer as is possible and attempt to determine his special interests and establish a common ground.
2. Lead the farmer to talk about himself and his special interests. If you permit the farmer to do most of the talking, he may give you most of your arguments.
3. Talk in the farmer's language and in terms he can understand. When a new term is used, be sure he understands exactly what it means. Do not assume too much previous knowledge on his part. Be sure he knows what you are talking about.
4. Sell the program out on the field so the farmer can see what is being discussed. In showing a farmer signs of erosion on his farm, try not to antagonize him.
5. Consistently take the attitude that you know he is interested.
6. Hold your suggestions, if possible, until the entire farm has been covered.
7. Do not promise any work which is subject to the approval of others.
8. Be sure the cooperator is sold on soil conservation and not merely on the labor or material furnished by the government.
9. Explain only pertinent practices. Do not cover too many subjects. It is better to omit the explanation of some practices in early contacts than to explain them all and not have the farmer understand any of them.
10. Be slow to suggest any changes radically different from the general practices in the community, particularly along agronomic lines.
11. Do not scare the farmer into believing that his farm is going to rack and ruin.
12. Give the farmer something to think about and leave him in a thinking mood.
13. Leave the farmer in a friendly attitude so that you can return in a month or a year and be welcome.

CHINA'S SOIL DESTRUCTION

Arthur P. Chew, of the Department of Agriculture, is author of "Save America First" in the Atlantic. One paragraph says: "It was not ignorance that brought about soil destruction in China, though certainly the western world has a more exact knowledge of what erosion does, and of how it may be prevented. But what could the Chinese do, when between 1743 and 1920 their population increased nearly threefold? There was only one thing possible, since they were confirmed individualists -- to push cultivation up the mountains. They carried it to the very summits. To get soil, they had to cut down trees; and when by that means they had got soil, they could not keep it. Moreover, the short life of agriculture on the hillsides ended the long life of agriculture on the plains. Every farm won from the mountain side ruined a dozen in the path of the released torrents. In the end there was less production than there had been before, and the standard of living declined terrifically. The struggle for new land killed old land. The loss far exceeded the gain; but it could have been prevented only by an arrangement of some sort between the tillers of the plains and the would-be cultivators of the heights -- in other words, by the extension of aid from the plainsmen to the hill people for the control of erosion. And that was further in social engineering than the Chinese were prepared to go."

- The Six Twenty Six

DR. WILBUR STRESSES NEED OF CONSERVATION

Conservation with all its significant implications was the dominant theme of the main address delivered by Dr. Ray Lyman Wilbur, Stanford University president, at the 46th annual commencement on June 13.

"We are beginning to catch glimpses of a desolate future - man made," Dr. Wilbur declared. "We have been coasting on the products of the geologic ages in minerals, gas, oil and soil. Down-hill traveling is easy, fast and dangerous. The up-hill pull is hard, slow and usually safe."

"We have now harvested a good many of the 'easy crops' or the products of the geologic ages. We have made our first 'clean-up' on our forests wherever we could get at them on a satisfactory financial basis or where they stood in the road of agriculture; many of our shallower oil fields have been exhausted, our mines exploited, and our coal deposits depleted."

"The easy things have been done - for the most part in a slipshod and destructive manner."

- California Ranger

HIRES OUR MEN TO DO HOEING

A few of the cooperators in the A.C.P. are finding the hoeing job a pretty big one for one man. One cooperator hired one of our crews, foreman and all, for a couple of days while they were off regular work. The farmer took them out to his three shelterbelts and started them out, telling them to hoe a strip three feet wide down each row. It took the crew of one foreman and eleven men two days to hoe the 27 acres. The farmer was out the evening of the second day and paid each one cash, which cost him \$58.08. The cooperator was well satisfied. Since they hoed that strip, two more A.C.P. cooperators have called in and want a crew out to hoe theirs.

- Glenn W. Spring, Kansas

WHAT DOES THE JOB PAY?

I was asked the other day, "Is a job in the Forest Service a good one? What does it pay?"

After some thought I was impelled to reply: "It is a good job, and it pays wonderfully well. More than any other work it satisfies that universal human hunger to create something worth while; it provides the best of all schools in which to study the workings of nature; it furnishes a calling which commands the respect of mankind.

"I shall never flash across the firmament as a captain of finance, nor require a secretary to handle my fan mail, nor be the subject of band-stand oratory, but long after I am gone, people shall stand in the shelter of the trees that I have planted and call my name blessed.

"Yes, this is a good job that I have."

- Carl A. Taylor, Nebr.

NEBRASKA NOTES

Field work of the Forest Service under the Range Conservation Program in Nebraska will be finished about July 15. County averages which will act as a check on local examiners are being secured now, and when that work is finished those men detailed from other Regions will return home to their official stations. Hartwell has already departed for a special job in eastern Montana and A. J. Wagstaff and M. J. Markham are scheduled to leave between July 15 and 20 for Region 4. Mr. Wagstaff will take a few days' annual leave at the completion of his detail and visit a number of midwestern points before returning to his official station at Provo, Utah, where he is Assistant Supervisor on the Uinta National Forest. Mr. Markham will return to the Wyoming National Forest where he is District Ranger at a station a few miles from Pinedale, Wyoming. It has been very pleasant to have these men working in the State this summer. They trained and supervised the work of approximately 90 local county range examiners who made estimates of range carrying capacity for nearly seven million acres in 38 western Nebraska counties.

The first "show-me" trip of the summer was held in the Neligh District on June 27. A fair crowd from towns and surrounding rural communities turned out with three carloads from an adjoining county. A number of shelterbelt plantings of varying ages were visited. The tour started at 1:15 P.M. which turned out to be about an hour too early for late Sunday diners. Several more such tours are planned for the near future in other Nebraska concentration areas.

On July 4 E. Garth Champagne was married to Theresa Grantham at Miss Grantham's home in Kearney. They immediately left for a month's honeymoon trip through the Black Hills, Yellowstone Park and Jackson Hole. They will make their home at Neligh after August 1, where Mr. Champagne will have charge of our work in Antelope, Holt and Wheeler counties. The very best wishes of the entire Nebraska organization go with Garth and the new "missus."

Dr. H. N. Wheeler of the Washington office gave two illustrated lectures in Nebraska late in June before audiences of summer school students at the Kearney and Wayne State Teachers Colleges. Approximately 500 were in attendance at the lecture at Kearney and 650 at Wayne. Dr. Wheeler has some fine "dope" and we hope he comes back often and stays longer.

OKLAHOMA NOTES

Mr. George Phillips, formerly State Director of this Unit and now connected with the Washington Office, spent several days in Oklahoma looking over the old stamping ground. George reported that the trees in most cases were making a good growth but that some strips were rather weedy. We enjoyed his stay with us and hope he will be able to return more frequently in the future.

Messrs. Tinker, Roberts, Olson and Reitz were visitors during the latter part of June. They gave some of our strips and the Mangum Nursery the once-over on their way to Texas. We appreciated the opportunity of having these officials visit the State Office and see some of the work that had been done in the field.

Dr. H. N. Wheeler, Lecturer for the Forest Service, gave two lectures in Oklahoma before summer school audiences. Our State Office was well represented at the lecture given at the University of Oklahoma at Norman. Dr. Wheeler's lectures were well received and numerous favorable comments were heard concerning them.

Once in a while we receive letters from our cooperators which break the monotony of formal correspondence. The following letter was received in response to our recent cultivation circular:

Mooreland, Oklahoma, July 7, 1937
Rural Route No. 1

To John R. Nelson,

Dear Sir:

"In regard to your letter of the 23th of June, I'll write this, the trees on the strip under my care are like a lot of other strips - doing fine with a few exceptions. I reported to Handsome Carey Johnson at the Woodward Office a while back, and asked him how come the oaks wasn't up. His answer was typical forest service, it was, 'they are awful damned slow to sprout.' I have about a 3-quarter showing of walnut. Handsome says I'm lucky, for walnut runs from zero to a half stand all over the district. The tamariks got eaten down by a long green worm, immune to poison, hell, and high water. The locusts, cottonwoods, apricots and mulberries are making a good growth, considering rainfall and heat. When the Department's tractor Cultivating Outfit got in my strip I was finishing the second listing. They went one round and pulled out, so as to save face, and make a report (Don't blame 'em after making the trip). The supervisor told me to go see if Handsome wouldn't turn the caretaker's job over to me. We hoed once and then tried to list a row of cane through the middle but a rain flooded the cane all out. We propose to let some weeds and crab grass grow in strips to hold sand from drifting. Next time you all write Johnson please tell him my salt blocks are about half empty. I've counted 95 dead jacks and at least 300 more needing killing.

"Your dern tootin' John, we will keep right on workin' for that shelterbelt."

Yours sincerely,
/s/ Carlos W. Dodson